

Amendments to the Claims:

Please cancel claims 1-4 without prejudice to subject renewal, as indicated herein.

Please amend claims 5, 7-15, 21, 22, and 28. These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter, or agreement with any objection or rejection of record. These amendments introduce no new matter and support for the amendment is replete throughout the specification and claims as originally filed.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled) ~~A polynucleotide encoding a promoter operatively linked to a transcriptional unit, wherein the promoter comprises a promoter functional in a plant or plant cell, and wherein the transcription unit encodes a fusion protein, wherein the fusion protein comprises (1) a viral protein, (2) a protein of interest, and (3) an autoproteolytic peptide comprising no more than 20 amino acids, wherein (3) is fused between (1) and (2).~~
2. (Cancelled) ~~The polynucleotide according to Claim 1, wherein the viral protein is obtained from a RNA virus.~~
3. (Cancelled) ~~The polynucleotide according to Claim 2, wherein the RNA virus is a plant RNA virus.~~
4. (Cancelled) ~~The polynucleotide according to Claim 3, wherein the plant RNA virus is a plant single stranded RNA virus.~~
5. (Currently amended) The A polynucleotide according to Claim 4 encoding a promoter operatively linked to a transcriptional unit,
wherein the promoter comprises a promoter functional in a plant or plant cell; and
wherein the transcription unit encodes a fusion protein comprising:
 - (1) a viral protein obtained from a plant single-stranded RNA virus, wherein the plant single-stranded RNA virus is a hordeivirus;
 - (2) a protein of interest, and
 - (3) an autoproteolytic peptide comprising no more than 20 amino acids, wherein (3) is fused between (1) and (2).
6. The polynucleotide according to Claim 5, wherein the hordeivirus is a barley stripe mosaic virus.
7. (Currently amended) ~~The polynucleotide according to Claim 4~~ Claim 5, wherein the autoproteolytic peptide comprises a 2A autoproteolytic peptide from a foot and mouth disease virus.
8. (Currently amended) ~~The polynucleotide according to Claim 4~~ Claim 5, wherein the autoproteolytic peptide comprises the amino acid sequence depicted by SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, or SEQ ID NO: 9.

9. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the fusion protein comprises no more than one viral protein.
10. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the viral protein is a hordeiviral gamma-b (γ b) protein.
11. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the autoproteolytic peptide is fused to the C-terminus of the viral protein.
12. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the autoproteolytic peptide is fused to the N-terminus of the viral protein.
13. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the viral protein is a hordeiviral beta-b (β b) protein.
14. (Currently amended) The polynucleotide according to Claim 13, wherein the autoproteolytic peptide is fused to the N-terminus of the viral protein, and wherein the protein of interest is fused to the N-terminus of the autoproteolytic peptide.
15. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the protein of interest is a plant protein.
16. The polynucleotide according to Claim 15, wherein the plant protein is a structural protein, enzyme, or a protein involved with pigmentation.
17. A recombinant viral nucleic acid comprising the polynucleotide according to Claim 14.
18. A plant or plant cell containing the recombinant viral nucleic acid according to Claim 17.
19. A recombinant virus comprising the recombinant viral nucleic acid according to Claim 17, wherein the recombinant virus is capable of systemic expression of the fusion protein.
20. A plant or a plant cell infected with a recombinant virus according to Claim 19.
21. (Currently amended) The polynucleotide according to ~~Claim 4~~ Claim 5, wherein the fusion protein can be expressed in a plant or a plant cell.
22. (Currently amended) A recombinant viral nucleic acid comprising the polynucleotide according to ~~Claim 4~~ claim 5.
23. A recombinant virus comprising the recombinant viral nucleic acid according to Claim 22.
24. A plant cell infected with a recombinant virus according to Claim 23.
25. The plant cell according to Claim 24, wherein the plant cell is a monocot plant cell.
26. A plant infected with a recombinant virus according to Claim 23.
27. The plant according to Claim 26, wherein the plant is a monocot plant.
28. (Currently amended) A polynucleotide according to ~~Claim 4~~ Claim 5 wherein the protein of interest is a viral protein.
29. A recombinant viral nucleic acid comprising the polynucleotide according to Claim 28.
30. A recombinant virus comprising the recombinant viral nucleic acid according to Claim 29.
- 31-57. (Cancelled)

Appl. No. 09/771,009

Amdt. Dated January 30, 2004

Reply to Office action of October 3, 2003

58. A viral genome comprising at least one duplicated genomic nucleic acid component, wherein the duplicated genomic nucleic acid component encodes a promoter operatively linked to a fusion protein, wherein the promoter is functional in a plant or plant cell and is native to the virus, and wherein the fusion protein comprises (1) a viral protein, (2) a protein of interest wherein the protein of interest is non-native to the viral genome, and (3) an autoproteolytic peptide, wherein (3) is fused between (1) and (2).

59-67. (Cancelled)